

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed August 31, 1999. Claims 1-19 have been amended to correct typographical errors, make stylistic changes, and further clarify existing patentable distinctions over the prior art. These amendments were not made for purposes of patentability. In addition, Applicant respectfully submits that these amendments will not require a new search to be conducted and will not necessitate new or different grounds of rejection. Accordingly, Applicant respectfully requests that these amendments be entered, and requests reconsideration and favorable action in this case.

Consideration of Information Disclosure Statements

The Examiner has yet to consider Applicant's Information Disclosure Statement (IDS) filed on August 10, 1999 and Applicant's Supplemental IDS filed on October 6, 1999. Applicant brought this to the Examiner's attention in the Letter Re Incomplete Office Action dated October 6, 1999. Applicant again respectfully requests that the Examiner consider these Information Disclosure Statements and the references contained therein, as required for the Office Action to be complete.

Applicant makes this response to the Office Action mailed August 31, 1999, only providing that the Examiner does not hereafter issue a Final Office Action relying on any art submitted with the August 10, 1999 or October 6, 1999 Information Disclosure Statements but not considered in the August 31 Office Action. If the Examiner feels additional rejections based on this art are appropriate, Applicants respectfully request that the Examiner issue a second new Office Action, rather than a Final Office Action, to give Applicants a full and fair opportunity to respond to any new rejections based on this art. Naturally, Applicants would also respectfully request that the shortened statutory period for response to the new Office Action be restarted on the date such second new Office Action is mailed.

**Section 102 Rejections**

The Examiner rejects Claims 11-12 and 14-15 under 35 U.S.C. § 102(e) as being anticipated U.S. Patent 5,897,620 to Walker et al. ("*Walker '620*"). *Walker '620* discloses a method and system for selling airline tickets that have an unspecified departure time. (Column 2, Lines 24-29). *Walker '620* further discloses the use of a revenue management system (RMS) to analyze historic demand and pricing information for previous flights along a specified route during a specified time period. The RMS then uses this analysis to determine a number of "unspecified-time" airline tickets to create for a specific flight. Customers of the airline can then purchase the unspecified-time airline tickets through a "special fare listing" in an Airline Reservation System. (Column 4, Lines 38-58).

Independent Claim 11 of the present Application recites:

A computer-implemented method of pricing make-to-order products, comprising:

assigning a demand probability value to each of a plurality of products, each product having an associated delivery time and price;

calculating an expected revenue from the products for at least two available capacities, the expected revenue being a function of the demand probability values and the prices; and

calculating an asking price for each of the products as the difference between its expected revenue from successive available capacities.

*Walker '620* does not disclose, teach, or suggest these features and operation, whether *Walker '620* is considered alone or in combination with any other cited reference or with the knowledge of one having ordinary skill in the art at the time the invention was made. *Walker '620* does not disclose, teach, or suggest any method of pricing make-to-order products, much less the specific method recited in Claim 11. In particular, and at a minimum, *Walker '620* fails to disclose, teach, or suggest the following combination of limitations recited in Claim 11:

1. calculating an expected revenue from a plurality of products for at least two available capacities; and
2. calculating an asking price for each of the products as the difference between the expected revenue from the product for successive available capacities.

*Walker '620* does not disclose, teach, or suggest calculating an expected revenue from a product for at least two available capacities, in Figure 6 or otherwise. Instead, Figure 6 illustrates a forecasted demand analysis database that contains a selling price for an airline ticket and a forecasted demand (expected quantity of tickets to be booked) established by the RMS. (Column 9, Lines 29-32). The forecasted demand analysis database of Figure 6 does not include an available capacity component, and certainly does not disclose, teach, or suggest calculating revenue based on at least two available capacities.

Furthermore, *Walker '620* does not disclose, teach, or suggest calculating an asking price for a product as the difference between the expected revenue from the product for successive available capacities, in Figure 8 or otherwise. Instead, Figure 8 illustrates a seat allocation database that maintains available inventory of seats for a particular fare class on a given flight. (Column 10, Lines 1-15). Figure 8 does not disclose, teach, or suggest calculating an asking price for a product, much less basing this asking price on the difference between the expected revenue from the product for successive available capacities.

Applicant has demonstrated that *Walker '620* fails to disclose, teach, or suggest the limitations recited in independent Claim 11, whether *Walker '620* is considered alone or in combination with any other cited reference or with knowledge of one having ordinary skill in the art at the time the invention was made. Accordingly, Applicant

respectfully requests reconsideration and allowance of Claim 11, together with Claims 12-15, which depend from Claim 11.

**Section 103 Rejections**

The Examiner further rejects Claims 1-5 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,797,127 to Walker et al. ("*Walker '127*"), in view of U.S. Patent 5,270,921 to Hornick ("*Hornick*"). *Walker '127* discloses a system for determining an appropriate price for an option to purchase an airline ticket and for facilitating the sale and exercise of those options. (Column 2, Lines 64-67). *Hornick* discloses an airline seat reservation system in which seat reservations are controlled using a seat inventory control system. (Column 4, Lines 19-21). The airline seat reservation system disclosed in *Hornick* uses a flight network database to generate seat booking limits and/or marginal seat revenues to determine whether to accept or reject seat reservation requests from customers. (Column 4, Line 60 through Column 5, Line 5).

Independent Claim 1 of the present Application recites:

A computer-implemented method of valuing products, comprising:

assigning a price to each of a plurality of products, each product comprising one or more product components;

assigning a demand probability value to each product;

calculating a component value for each component by performing the following steps:

(a) assuming a beginning value for each component;

(b) for a first component, calculating prorated values, such that for each product using that component, a prorated value is calculated on that component by calculating the difference between the product price and a value of the product's other components;

(c) calculating a component value as a function of the prorated values and the probability values;

(d) repeating steps (b) and (c) for all other components;

(e) determining whether the component values converge;

and

(f) if any component value does not converge, using the calculated component value as the beginning component value and repeating steps (b) through (e) for that component; and  
calculating a value for each product, based on the results of the preceding step, by summing the component values of all components of that product.

*Walker '127* does not disclose, teach, or suggest these features and operation, whether *Walker '127* is considered alone or in combination with *Hornick* or any other cited reference. At a minimum, the proposed combination of *Walker '127* and *Hornick* fails to disclose, teach, or suggest the following combination of limitations recited in Claim 1:

1. assigning a price to each of a plurality of products where each product comprises one or more product components;
2. calculating a component value for each component by performing the recited steps (a) through (f);
3. calculating a value for each said product, based on the results of the preceding step, by adding the component value of each component of that product.

Contrary to the Examiner's suggestion, *Walker '127* does not disclose, teach, or suggest assigning a price to products comprising one or more product components. The “components” that the Examiner identifies in *Walker '127* are departure criteria (e.g., a departure airport), destination criteria (e.g., a destination airport), and travel criteria (e.g., the times when a customer is willing to fly). These criteria are described in *Walker '127* as being components of “flight information.” (Column 5, Lines 42-43). However, these criteria are not product components since flight information is not a product as described by *Walker '127*. Instead, an airline ticket (or an option to buy an airline ticket) is the product, and the flight information is merely used to determine a price of the product.

(Column 6, Lines 13-16). For at least these reasons, *Walker '127* does not disclose, teach, or suggest assigning a price to products comprising one or more product components.

Furthermore, as the Examiner admits, *Walker '127* does not disclose, teach, or suggest calculating a value for each of the components according to steps (a) through (f) recited in Claim 1. *Hornick* similarly fails to disclose, teach, or suggest the calculation of such values. *Hornick* merely discloses an airline seat reservation system that uses a flight network database to generate seat booking limits and/or marginal seat revenues to determine whether to accept or reject seat reservation requests from customers. (Column 4, Line 60 through Column 5, Line 5). *Hornick* does not disclose calculating product component values in the manner recited in Claim 1, nor does *Hornick* disclose, teach, or suggest calculating a value for a product by adding the values of the components of the product.

Applicant has demonstrated that the proposed *Walker '127-Hornick* combination fails to disclose, teach, or suggest the limitations recited in independent Claim 1, whether considered in isolation or in combination with any other cited reference. Accordingly, Applicant respectfully requests reconsideration and allowance of Claim 1, together with the claims that depend from Claim 1.

Claim 2, as amended, further distinguishes the present invention over the proposed *Walker '127-Hornick* combination in reciting that step (c) of Claim 1 is performed by multiplying probability values by prorated values. Claim 3, as amended, also distinguishes the present invention in reciting that step (c) of Claim 1 is performed by obtaining a sum of products of probability values and prorated values. The Examiner will note that Claims 2 and 3 have been amended to correct an inaccurate reference to step (d) in the claims as originally filed. As the Examiner admits, *Walker '127* does not disclose, teach, or suggest the limitations recited in Claims 2 and 3. Nor are these

limitations disclosed in *Hornick* (either in Columns 5, 12, or 13, as suggested by the Examiner, or elsewhere). Since Claims 2 and 3 depend from Claim 1, which Applicant has shown to be allowable, and since Claims 2 and 3 are patentable in their own right, Applicant respectfully requests reconsideration and allowance of Claims 2 and 3.

Claim 4 further distinguishes the present invention over the proposed *Walker '127-Hornick* combination in reciting that the probability values of Claim 1 include both the probability of demand for a product and the probability that demand will arrive in a certain order relative to other products. Nowhere does *Walker '127* disclose, teach, or suggest these limitations (either in Columns 5-8, as suggested by the Examiner, or elsewhere). Since Claim 4 depends from Claim 1, which Applicant has shown to be allowable, and since Claim 4 is patentable in its own right, Applicant respectfully requests reconsideration and allowance of Claim 4.

Claim 5 further distinguishes the present invention over *Walker '127* and *Hornick* in reciting that the method of Claim 1 is performed to value non-standard products and that assigning a price to each product in Claim 1 is performed by assigning prices of standard products. *Walker '127* does not disclose, teach, or suggest these limitations (either in Column 1, Lines 1-50, as suggested by the Examiner, or elsewhere). Since Claim 5 depends from Claim 1, which Applicant has shown to be allowable, and since Claim 5 is patentable in its own right, Applicant respectfully requests reconsideration and allowance of Claim 5.

The Examiner rejects Claims 6, 7, and 9 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,191,523 to Whitesage ("*Whitesage*"), in view of *Walker '620*. The Examiner further rejects Claim 8 under 35 U.S.C. § 103 as being unpatentable over *Whitesage* in view of *Walker '620*, and in further view of *Hornick*. *Whitesage* discloses a system for determining "true" origin-to-destination travel data

from segment travel information stored as segment data in a travel reservation database. Using the segment information, the system determines true travel cost and time data with reference to standard units (e.g., cost per distance unit and travel distance per time unit). This true travel cost and time data can then be used to determine direct costs such as fare price and indirect costs such as travel costs per unit of employee time. (Column 4, Line 54 to Column 5, Line 4).

Independent Claim 6 of the present Application recites:

A computer-implemented method of pricing an order for a product based on varying lead times during a specified time period, comprising:  
calculating a set of values for a product over a range of available supplies of the product;  
determining a size  $Q$  of the order;  
selecting a set of order points during a time horizon, each order point having a lead time  $LT$  to the next order point;  
for a first order point, calculating an incremental production quantity as  $Q/LT$ , and calculating revenue displaced by the incremental production quantity using the product values;  
repeating the preceding step for each other order point;  
calculating an average displaced revenue; and  
calculating the price for the order, using the results of the preceding step.

The proposed *Whitesage-Walker '620* combination does not disclose, teach, or suggest these features and operation, whether considered in isolation or in combination with any other cited reference. At a minimum, the proposed combination fails to disclose, teach, or suggest the following combination of limitations recited in Claim 6:

1. calculating a set of values for a product over a range of available supplies of the product;
2. determining the size of an order for the product;
3. selecting a set of order points during a time horizon, each order point having a lead time to the next order point;



4. for each order point, calculating an incremental production quantity, and calculating revenue displaced by the incremental production quantity using the set of product values;
5. calculating an average displaced revenue; and
6. calculating the price for the order using the results of the preceding step.

Neither *Whitesage*, *Walker '620*, nor *Hornick* discloses, teaches, or suggests pricing an order for a product based on lead times using any method, much less using the method recited in Claim 6. Furthermore, contrary to the Examiner's assertion, *Whitesage* does not disclose, teach, or suggest calculating a set of values for a product over a range of available supplies or selecting a set of order points during a time horizon where each order point has a lead time to the next order point. Moreover, neither *Whitesage*, *Walker '620*, nor *Hornick* discloses, teaches, or suggests calculating an incremental production quantity or calculating revenue displaced by the incremental production quantity using a set of product values. Applicant respectfully disagrees that Column 7 or Figures 7A and 7B of *Whitesage* or Column 11 of *Walker '620* disclose these limitations.

In addition, neither *Whitesage*, *Walker '620*, nor *Hornick* discloses, teaches, or suggests calculating an average displaced revenue or calculating the price for the order using the results obtained from calculating the average displaced revenue. Again, Applicant respectfully disagrees with the Examiner's assertion that these limitations are disclosed in Columns 9, 10, or 11 of *Whitesage*.

Applicant has demonstrated that *Whitesage-Walker '620* combination fails to disclose, teach, or suggest the limitations recited in independent Claim 6 whether considered in isolation or in combination with any other cited reference. Accordingly, Applicant respectfully requests reconsideration and allowance of Claim 6, together with Claims 7-10, which depend from Claim 6.

The Examiner rejects Claims 16-19 based on the same rationale as the rejection of Claims 1, 6, 11, and 14. Applicant has shown that Claims 1, 6, 11, and 14 are allowable over the prior art. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 16-19.

CONCLUSION

Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests allowance of Claims 1-19.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Christopher W. Kennerly, Attorney for Applicant, at the Examiner's convenience at (214) 953-6812.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 02-0384 of Baker & Botts, L.L.P.

Respectfully submitted,

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